Message

From: Fennessy, Christopher [christopher.fennessy@Rocket.com]

Sent: 9/12/2019 6:43:30 PM

To: MacNicholl, Peter@DTSC [Peter.MacNicholl@dtsc.ca.gov]; MacDonald, Alex@Waterboards

[Alex.MacDonald@waterboards.ca.gov]; Rohrer, Jim@DTSC [Jim.Rohrer@dtsc.ca.gov]; ROJAS-MICKELSON, DAEWON

[rojas-mickelson.daewon@epa.gov]; Keller, Lynn [Keller.Lynn@epa.gov]

Subject: RE: [EXTERNAL] RE: Characterization of Borrow Pile for Backfill of PGOU Excavations

Thanks for the quick responses.

Christopher M. Fennessy, P.E. Aerojet Rocketdyne, Inc.

Engineering Manager, Site Remediation

PO Box 13222

Sacramento, California 95813-6000

Ph: 916-355-3341 Fax: 916-355-6145

Email: Christopher.Fennessy@Rocket.com

From: MacNicholl, Peter@DTSC [mailto:Peter.MacNicholl@dtsc.ca.gov]

Sent: Thursday, September 12, 2019 11:43 AM

To: Fennessy, Christopher; MacDonald, Alex@Waterboards; Rohrer, Jim@DTSC; rojas-mickelson.daewon@epa.gov;

Keller, Lynn (Keller.Lynn@epa.gov)

Subject: RE: [EXTERNAL] RE: Characterization of Borrow Pile for Backfill of PGOU Excavations

Looks fine to me then.

From: Fennessy, Christopher <christopher.fennessy@Rocket.com>

Sent: Thursday, September 12, 2019 11:19 AM

To: MacNicholl, Peter@DTSC <Peter.MacNicholl@dtsc.ca.gov>; MacDonald, Alex@Waterboards <Alex.MacDonald@waterboards.ca.gov>; Rohrer, Jim@DTSC <Jim.Rohrer@dtsc.ca.gov>; rojas-mickelson.daewon@epa.gov; Keller, Lynn (Keller.Lynn@epa.gov) <Keller.Lynn@epa.gov> **Subject:** RE: [EXTERNAL] RE: Characterization of Borrow Pile for Backfill of PGOU Excavations

Hi Pete – Yes, the 2001 guidance was used back in 2009. Since our fill material was neither from Land near an existing freeway, Land near a mining area or rock quarry, Agricultural land, or Residential/acceptable commercial land, we selected analytes based upon the 20+ years of investigation data for the entire Aerojet Site. We submitted a recommended sampling plan, which was accepted by DTSC (see attached).

The 2012 re-evaluation of the same backfill pile was also conducted per the 2001 guidance (see the bottom of page 2 of the Kleinfelder report), assuming it was coming from Residential/acceptable commercial land. All required analytes were either not detected or comparable to background.

Seven samples have been collected and analyzed and results have all been acceptable for use as backfill material. This would be representative of a borrow area of 3.5 acres, which is much greater than the area of the planned excavations at Area 40. No activities are known to have occurred in the borrow pile area since 2012, when the last samples were

collected and analyzed, so there is no reason to believe that the remaining borrow pile is any different than the 2009 or 2012 borrow pile.

Chris

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Email: Christopher.Fennessy@Rocket.com

From: MacNicholl, Peter@DTSC [mailto:Peter.MacNicholl@dtsc.ca.gov]

Sent: Thursday, September 12, 2019 10:56 AM

To: Fennessy, Christopher; MacDonald, Alex@Waterboards; Rohrer, Jim@DTSC; rojas-mickelson.daewon@epa.gov;

Keller, Lynn (Keller.Lynn@epa.gov)

Cc: Rohrer, Jim@DTSC

Subject: [EXTERNAL] RE: Characterization of Borrow Pile for Backfill of PGOU Excavations

See attached. Thank you Jim.

From: Fennessy, Christopher < christopher.fennessy@Rocket.com

Sent: Thursday, September 12, 2019 10:09 AM

To: MacDonald, Alex@Waterboards <<u>Alex.MacDonald@waterboards.ca.gov</u>>; MacNicholl, Peter@DTSC

<Peter.MacNicholl@dtsc.ca.gov>; Rohrer, Jim@DTSC <Jim.Rohrer@dtsc.ca.gov>; rojas-mickelson.daewon@epa.gov;

Keller, Lynn (Keller.Lynn@epa.gov) <Keller.Lynn@epa.gov>

Subject: FW: Characterization of Borrow Pile for Backfill of PGOU Excavations

Hi Everyone – Per our discussion yesterday, the attached and following (regarding approval of the backfill borrow material) were sent to the Agencies back in 2006, during the 10D/11D remedial action. The Agencies approved the use of this material. In 2012, during the C41 removal action, the material was again approved for use (see Kleinfelder analytical report).

We intend on using this borrow pile for the Area 40 backfill, unless the geotechnical engineer says it is not adequate to meet the compaction requirements. If you disagree, please let me know.

Chris

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Email: Christopher.Fennessy@Rocket.com

From: Fennessy, Christopher

Sent: Tuesday, October 27, 2009 1:18 PM

To: 'Alex MacDonald'; 'Edward Cargile'; 'Mayer.Kevin@epamail.epa.gov'

Cc: Caulk, Cindy L; Fennessy, Christopher

Subject: RE: Characterization of Borrow Pile for Backfill of PGOU Excavations

Hi Everyone – Attached are the analytical results for the samples collected from the borrow piles. The samples were identified as follows:

Pile near 10D ditch = Borrow-RE-1, Borrow-RE-2, and Borrow-RE-3 Pile near GET B = Borrow-GETB-1, Borrow-GETB-3

SVOC data is included on pages 1-12 for these samples, followed by QA/QC. As you can see, SVOCs were below detection limits in all samples except Borrow-GETB-3. Borrow-GETB-3 contained a detectable concentration (below reporting limit) of bis (2-Ethylhexy) phthalate.

PCB data is included on pages 17-19, followed by QA/QC. Our action level for PCBs is 90ug/Kg. As you can see, all results are below this concentration. All results are below reporting limits (13ug/Kg) except for PCB-1248 in the Borrow-GETB-2 sample (41ug/Kg).

Lead data is included on page 23, followed by QA/QC. Our lead action level is 127mg/Kg. The 95UTLs for lead in the background data sets (using USEPA Method 6020) are 13.4mg/Kg (Redding-Corning-Red Bluff) and 18.6mg/Kg (Xerorthents). All lead concentrations in the Borrow pile samples were below 18.6mg/Kg, which is a good indication that concentrations of lead are naturally occurring.

Perchlorate data is included on page 25, followed by QA/QC. Our perchlorate action level is 60ug/Kg. All results are below detection limits (5.3 to 5.9ug/Kg).

Cr+6 data is included on page 27, followed by QA/QC. Or Cr+6 action level is 1.4mg/Kg. All results are below reporting limits (0.40 to 0.44mg/Kg).

Please use the approve/reject buttons at top of this e-mail to indicate your concurrence with using this material as backfill for the 10D/11D ditches and the C41 excavation. If these buttons do not appear, please reply to this e-mail with your response.

Thanks, Chris

Christopher M. Fennessy, P.E.

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Ph: 916-355-3341 Fax: 916-355-6145

Email: Christopher.Fennessy@Aerojet.com

From: Fennessy, Christopher

Sent: Monday, October 19, 2009 1:10 PM

To: 'Alex MacDonald'; 'Edward Cargile'; 'Mayer.Kevin@epamail.epa.gov'

Cc: Caulk, Cindy L

Subject: Characterization of Borrow Pile for Backfill of PGOU Excavations

Hi Everyone – To characterize the borrow piles that will be used to backfill PGOU excavations, we intend on collecting three, 5-point composite samples from each pile (2 piles) and analyzing for the following:

Metals Cr+6 PCB Perchlorate

SVOC

One of the borrow piles consists of dirt removed during installation of the access road for the Honda dealership and is located south of the road and north of the 10D ditch. The other borrow pile consists of a cobble pile generated during historic dredging activities and is located southwest of GET B. Since neither of these borrow piles are located in historically active areas, these analyses should give us a good characterization. Any thoughts?

Thanks, Chris

Christopher M. Fennessy, P.E.

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